UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,585	07/31/2003	Maharaj Mukherjee	FIS920030265	1584

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EXAMINER
MASKULINSKI, MICHAEL C

ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/604,585	MUKHERJEE, MAHARAJ
	Examiner	Art Unit	
	Michael C. Maskulinski	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _22 December 2003_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _11-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _11-13 and 15-20_ is/are rejected.

7) ☒ Claim(s) _14_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _31 July 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _2/13/04; 7/26/05_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Non-Final Office Action

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 11-13, 15-18, and 20 are rejected under 35 U.S.C. 102(b) as being

anticipated by Liron, U.S. Patent 5,598,532.

Referring to claims 11 and 20:

a.   In column 3, lines 15-19, Liron discloses optimization for the purpose of

finding the optimal position in the network of a shared central resource (a method

for configuring a system having a plurality of processors to provide the system

with at least one cluster of processors, each cluster having one service point).

b.   In column 3, lines 37-41, Liron discloses that the optimization method

serially attaches the shared central resource to each possible candidate network

segment, router or other switching element and determines the total hop (a

distance) cost incurred in communicating with its clients (computing a distance

from each processor to other processors in the system; computing a plurality of

total distances, where each total distance is associated with one processor).

c.   In column 3, lines 41-43, Liron discloses that the position yielding the

minimal hop cost is selected as the optimal position for the shared central

resource (determining a minimum total distance from the plurality of total

distances; and assigning as the service point the processor having the minimum total distance associated therewith).

d.   With respect to claim 20, in column 5, lines 39-42, Liron teaches a computer-readable storage medium having stored therein instructions for performing a method for configuring a system having a plurality of processors to provide the system with at least one cluster of processors, each cluster having one service point.

Referring to claim 12, in column 4, lines 22-24, Liron discloses that the network includes a number of LAN segments, each of which contains a plurality of nodes (partitioning the system into a plurality of clusters).

Referring to claim 13:

a.   In column 3, lines 37-41, Liron discloses that the optimization method serially attaches the shared central resource to each possible candidate network segment, router or other switching element and determines the total hop (a distance) cost incurred in communicating with its clients (sorting the processors in accordance with the total distance associated with each processor).

b.   In column 6, lines 5-7, Liron discloses that the optimization process identifies all clients communicating with R (shared resource). Clients are distributed throughout the network in nodes on various LAN segments (assigning each processor to one of two clusters).

c.   In column 3, lines 41-43, Liron discloses that the position yielding the minimal hop cost is selected as the optimal position for the shared central

resource (determining a minimum total distance for the processors in each cluster in accordance with the plurality of total distances associated with the processors in said cluster; and assigning as the service point for each cluster the processor having the minimum total distance associated therewith in said cluster).

Referring to claim 15, in column 5, lines 49-51, Liron discloses that the switching elements typically include LANs segments, routers, bridges, routing servers, LAN switches, and the like (wherein the processors are of different types, and the processors are assigned to clusters in accordance therewith).

Referring to claims 16 and 17, in column 5, lines 3-10, Liron discloses modeling "what-if" changes by simulating the network model of the modified network, and submitting that model to optimizer for optimization. The "what-if" capabilities of simulator let a network manager move network devices around, add applications, change one object type with another (e.g. from an Ethernet LAN to an FDDI LAN, or from one router type to another), and the like (wherein said configuring is performed dynamically when a processor is added or removed from the system).

Referring to claim 18, in column 5, lines 3-10, Liron discloses modeling "what-if" changes by simulating the network model of the modified network, and submitting that model to optimizer for optimization. The "what-if" capabilities of simulator let a network manager move network devices around, add applications, change one object type with another (e.g. from an Ethernet LAN to an FDDI LAN, or from one router type to another), and the like. Further, in column 9, lines 41-47, Liron discloses partitioning a

LAN segment into hubs (wherein the partitioning of the system is dynamically changed

when a processor is removed from the system).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liron,

U.S. Patent 5,598,532.

Referring to claim 19, Liron teaches a shared central resource (a service point).

However, Liron doesn't explicitly disclose assigning another processor as a backup

service point. The Examiner takes Official Notice that it is notoriously well known in the

art of networks to have redundant backup servers. Most large networks have backup

servers in order to prevent downtime and guarantee customer satisfaction. It would

have been obvious to one of ordinary skill at the time of the invention to include a

backup shared central resource into the system of Liron. A person of ordinary skill in

the art would have been motivated to make the modification because it would guarantee

continuous service to all the nodes that share that particular resource.

Allowable Subject Matter

5.   Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art is related to cluster configurations and reconfiguring.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Maskulinski whose telephone number is (571) 272-3649. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C Maskulinski
Examiner
Art Unit 2113